



Joint Service Solvent Substitution Greening DoD Cleaning



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

Wayne Ziegler
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Targeted Processes

- Aircraft Maintenance
- Ship Maintenance
- Facility Maintenance
- Etc.

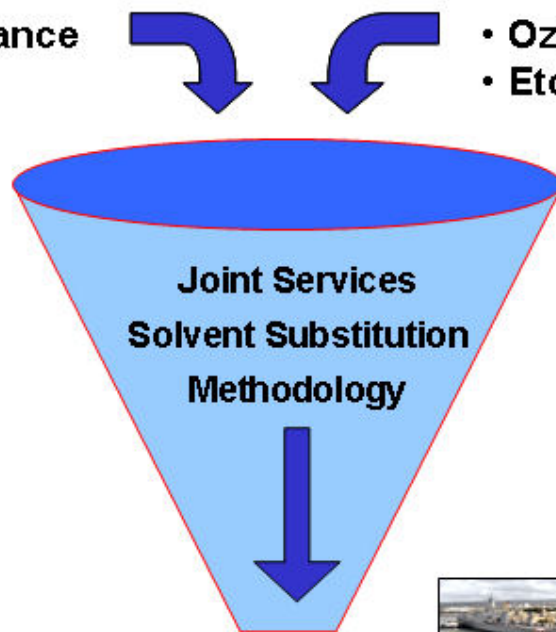
Requirement

Candidate Solutions

- Aqueous Solvents
- Biobased Solvents
- Ozone
- Etc.

Partners

- NAVSEA
- NAVAIR
- Marine Corps
- Army
- Air Force
- NASA



- Screening Methodology
- Test Protocol
- Lab Testing
- Field Testing
- Process Approval
- Update Manuals
- User Awareness
- Implementation Support



Processes not requiring extra record keeping & control measures



**Joint Service
Solvent Substitution
Working Group**

Facilitate open communication
Encourage collaboration
Promote a well coordinated
response to solvent issues

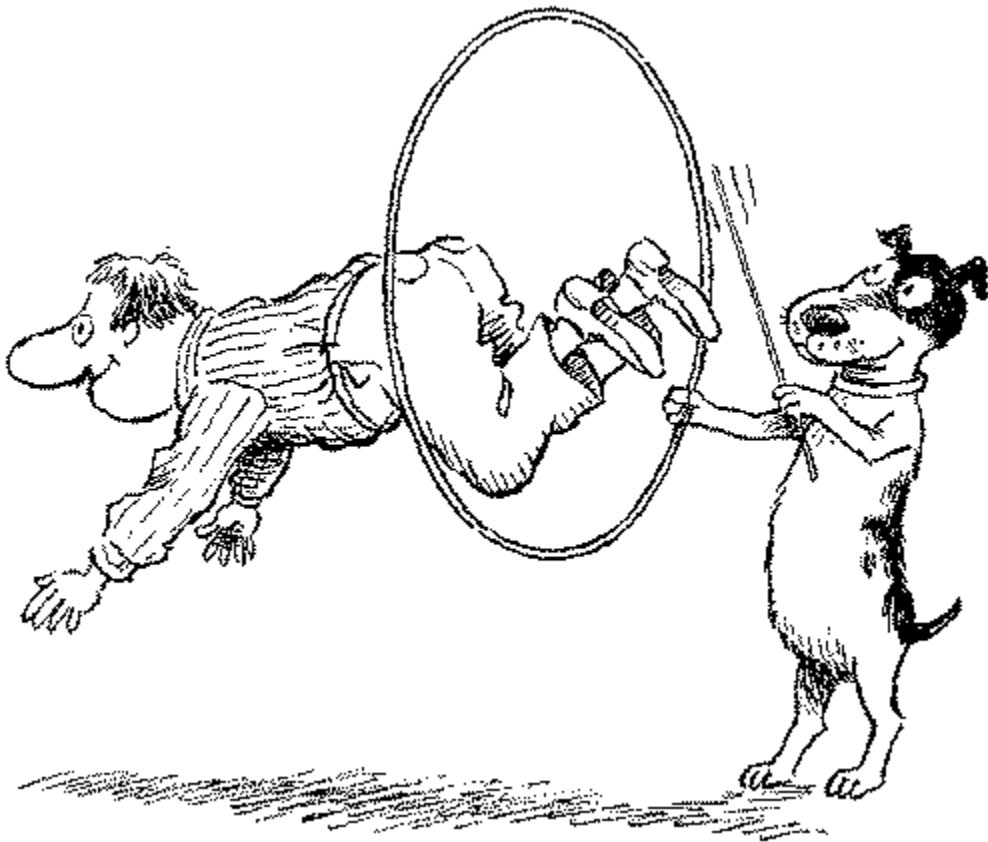


All cleaning
applications
are not
equivalent

There is more to
defining a
cleaning process
than identifying
the existing
cleaner



**Performance
Requirements are the
Key!**



Regulations are
subject to
change

It's not easy being Green!



And Green is not enough



Define Performance Requirements

- Why is there a cleaning process?
- What is the contaminant?
- What are the substrates?
- What are the possible downstream impacts?
- What are the overall process constraints?



- Adapt!
- Blends
- Containment
- Process Development
- Materials substitution
- Iterative interchange with chemical suppliers



- Control is the key
 - Supply control
 - ongoing commodity management
 - Process control
 - user education
 - Document control
 - new & updated specifications
- We have to get control!!



- JS3 Methodology
- Regular Information Exchanges
- Project Coordination
- JS3 Project Database



JS3 General Cleaning Specification Development Effort

- Finding alternatives is the “easy” part – performance requirements are the key
- Green is not enough – drive the performance & economic benefits
- No one size fits all solution or implementation strategy



JS3WG Co-Chairs

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